

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A process for the production of alcohols, comprising:
 - (a) subjecting an olefin to a hydration reaction with water to form a reaction product including the corresponding alcohol, the olefin having a carbon chain of 2 to 12 carbon atoms, the carbon chain being selected from a linear chain and a branched chain, the reaction being conducted in the presence of a solid state olefin hydration catalyst in a reaction zone, the temperature and pressure of the hydration reaction being selected so that the olefin is largely in a vapour phase and the alcohol is in the liquid phase, the olefin being in a molar excess when compared with water, and producing a product stream ~~the alcohol content of the water in the reaction zone being maintained at a level to produce a product stream essentially comprising the corresponding alcohol and water; and,~~
 - (b) heating the product stream in a reboiler and returning volatile components to step (a) for further processing;
 - (c) simultaneously recovering a product stream from the reboiler; and,
 - (d) maintaining a sufficient mole fraction of alcohol in the reaction zone such that the product stream from the reboiler essentially comprises the corresponding alcohol and water as a substantially anhydrous liquid.
2. (Original) A process according to claim 1 further comprising maintaining the alcohol content of the water in the reaction zone from 10 to 40% mole fraction.

3. (Original) A process according to claim 1 further comprising maintaining the alcohol content of the water in the reaction zone from 15 to 40% mole fraction.
4. (Original) A process according to claim 1 further comprising maintaining the alcohol content of the water in the reaction zone from 25 to 40% mole fraction.
5. (Original) A process according to claim 1 wherein the water in the reaction zone is subjected to mixing such that the alcohol content of the water in the reaction zone is maintained at the level to produce a product stream essentially comprising the corresponding alcohol and water as the water travels through the reaction zone.
6. (Original) A process according to claim 1 wherein the catalyst has hydrophobic properties.
7. (Original) A process according to claim 6 wherein the reaction in step (a) is effected by catalytic distillation.
8. (Original) A process according to claim 1 wherein step (a) is effected at a pressure of 0.1 to 4 MPa.
9. (Original) A process according to claim 8 wherein step (a) is effected in a temperature range of 50-225 °C.
10. (Original) A process according to claim 9 wherein the feed ratio of water to olefin is in the range of 1:3 to 1:5.

11. (Original) A process according to claim 10 wherein the pressure is about 2 kPA.
12. (Original) A process according to claim 11 wherein the olefin has a carbon chain of 2-4 carbon atoms.
13. (Cancelled)
14. (Cancelled)
15. (Cancelled)
16. (Original) A process according to claim 12 wherein the catalyst is disposed within the column in two separate spaced apart catalytic beds, the two catalyst beds together comprising the reaction zone.
17. (Original) A process according to claim 16 wherein step (a) is effected at a pressure of 0.1-4 MPa, and a temperature in the range of 50—225 °C.
18. (New) A process according to claim 1 further comprising recovering the alcohol from the reboiler as a substantially anhydrous liquid.